REMARKS

Amendments to the Claims

Claims 1-4 and 6-18 are pending in the present application. Claim 5 has been canceled. No additional claims fee is believed to be due.

Claims 1, 11, 13, and 16 have been amended as shown above to more particularly and more distinctly claim the subject matter of the present invention. Support for this amendment can be found in the original claims and at page 2, line 16 to page 4, line 2 of the specification. Additionally, pursuant to any requirement under 37 C.F.R. § 116, these current amendments were not earlier presented because it is Applicants' position, as stated in Applicants' Amendment and Remarks dated July 15, 2005, that the previously presented claims are definite under 35 U.S.C. § 112, second paragraph, and further are novel and nonobvious over the prior art of record. Notwithstanding, the current amendments are now presented as it is believed that they are in accord with the Examiner's suggestion, which was made at page 3 of the Office Action dated September 23, 2005.

Claim 6 has been amended as shown above to depend from claim 1 instead of claim 5. Support for this amendment can be found in the original claims.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1, 4, 11, 13, and 16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. First, the Examiner asserts that claims 1, 11, 13, and 16 are indefinite because the claims recite the limitation "if Y is an active leaving group, at the position having the active leaving group Y, provided that if X is phenyl then Y is not ethyl or methyl", and that it is unclear when Y is defined as ethyl or methyl. The Examiner requests clarification. Second, the Examiner asserts that claim 4 is indefinite because the claim recites the limitation "wherein X and Y are methyl" and that there is insufficient antecedent basis for this limitation. Applicants traverse the present rejections based on the following comments.

First, with respect to the Examiner's assertion that it is unclear what is meant by the limitation "if Y is an active leaving group, at the position having the active leaving group Y, provided that if X is phenyl then Y is not ethyl or methyl", Applicants respectfully submit that the Examiner is reading a portion of a first proviso together with a second proviso, which is resulting in an apparently incomplete proviso and unclear meaning. Claims 1, 11, 13, and 16, as currently amended, recite a first proviso requiring that, in the presence of an oxidizing agent, the developer reacts with the coupler substantially only at the position having the active leaving group Z, *and*, if Y is an active leaving group, *the developer reacts with the coupler also* at the position having the active leaving group Y. Separately, these claims then recite a second proviso requiring that, if X is phenyl, then Y is not ethyl or methyl.

Second, with respect to the Examiner's assertion that claim 4 is indefinite because the claim recites the limitation "wherein X and Y are methyl" and that there is insufficient antecedent basis for this limitation, the claims have been amended to recite that Y is selected from the group consisting of, *inter alia*, alkyl. One of ordinary skill in the art would understand that methyl is a species within the generic term alkyl.

Therefore, as currently amended, claims 1, 4, 11, 13, and 16 are definite and particularly point out and distinctly claim Applicants' invention. Accordingly, Applicants respectfully request that the present rejection be withdrawn.

Provisional Double Patenting Rejection Over Co-Pending US Application No. 10/764,191

Claims 1 and 9 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 11 of co-pending US Application No. 10/764,191.

A properly executed terminal disclaimer in compliance with 37 CFR 1.321(c) has been filed with this paper. Therefore, it is believed that this provisional rejection is obviated.

Rejections Under 35 U.S.C. § 103(a) Over International Application WO 98/52519 to Pratt in view of US Patent No. 5,578,087 to Audousset et al.

Claims 1-18 are rejected under 35 U.S.C. § 103(a) as being unpatentable over International Application WO 98/52519 to Pratt ("Pratt") in view of US Patent No. 5,578,087 to Audousset et al. ("Audousset"). The Examiner asserts that Pratt teaches a hair coloring composition comprising developer compounds capable of undergoing only a single electrophilic attack reaction, and a coupler which is similar to Applicants' claimed coupler of formula (I). The Examiner also asserts that Pratt discloses a method for coloring hair and a hair coloring kit. However, the Examiner acknowledges that Pratt does not teach or disclose a composition comprising developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing at least two electrophilic attack reactions, as Applicants' claims require.

The Examiner then asserts that Audousett teaches a hair coloring composition comprising the developer compound of para-phenylenediamine, which undergoes at least two eletrophilic attack reactions, and the developer compound of N,N-bis (β-hydroxyethyl) para-phenylenediamine (*i.e.*, an N,N-disubstituted p-phenylenediamine), which undergoes a single electrophilic attack reaction. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the composition of Pratt by substituting the developer N,N-bis (β-hydroxyethyl) para-phenylenediamine with the developer para-phenylenediamine because Audousset teaches the equivalence of using para-phenylenediamine and N,N-bis (β-hydroxyethyl) para-phenylenediamine in a hair coloring composition. Applicants respectfully traverse the present rejection based on the following comments.

The combination of Pratt and Audousset does not establish a *prima facie* case of obviousness because the Examiner acknowledges on the record that Pratt does not teach or disclose a composition comprising developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing at least two electrophilic attack reactions, and, further, there is no suggestion or motivation in view of Audousset to modify Pratt to achieve Applicants' hair coloring composition. Indeed, modifying the composition of Pratt by substituting the developer N,N-bis (β-hydroxyethyl) para-phenylenediamine with the developer para-phenylenediamine as shown in Audousset would change the principle of operation of the invention of Pratt. *See* MPEP 2143.01. If the proposed modifications or combinations of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *See In re Ratti*, 270 F.2d 810, 120 USPQ 349 (CCPA 1959).

Applicants' claim 1, as currently amended, is directed to a hair color composition comprising (a) one or more developers selected from *amino aromatic systems capable of being oxidized and thereafter undergoing at least two electrophilic attack reactions*, and wherein the one or more developers are *selected from the group consisting of ortho- or para-disubstituted benzene compounds, disubstituted pyrimidine compounds, disubstituted pyridine compounds, and diamino-substituted pyrazole compounds*, and (b) one or more couplers selected from compounds of the formula (I) as claimed. Applicants' claimed hair color compositions provide improved ultraviolet light (UV) fade resistance for the magenta color which results from the claimed couplers by using the claimed couplers in combination with developers which undergo at least two electrophilic attack reactions.

In contrast, Pratt is directed to hair coloring compositions comprising (a) developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing *a single nucleophilic attack reaction*, and (b) certain described couplers. Pratt describes the advantage of selecting a developer which reacts substantially only at one position as being that the disclosed couplers couple with the developer at only one position so as to produce only one colored dimer, which results in extremely efficient formation of color molecules and improved accuracy in predicting the final overall color produced. While Pratt, at the bottom of page 21, discloses a p-phenylenediamine compound of a formula XIV in which R20 and R21 may each independently be hydrogen, one of ordinary skill in the art would not select R20 and R21 to both be hydrogen in view of the entire disclosure of Pratt.

As formula XIV is representative of a suitable developer for use in the invention of Pratt, the selection of its substituents from among those listed should be made in view of the additional teachings of Pratt. Notably, at page 21, line 18 of Pratt, formula XIV is characterized not simply as "p-phenylene diamine", but instead as an "*N,N-disubstituted* p-phenylene diamine" developer (emphasis added). If R20 and R21 were both selected to be hydrogen, formula XIV would not represent an *N,N-disubstituted* p-phenylenediamine compound. Moreover, at page 5, lines 30-36, Pratt specifically teaches that "the structure of the developer is such that it reacts substantially only at one position, which is normally an amine. *Suitable developers of this type include amino aromatic systems in which there is only one primary amine group*, at which reaction occurs, other amine and other reactive groups being protected by blocking substituents" (emphasis added). Thus, although the disclosure of formula XIV provides that R20 and R21 may each independently be hydrogen, the teachings of Pratt as a whole would indicate to one of ordinary skill in the art that suitable developers for the invention of Pratt would not include a compound of formula XIV wherein R20 and R21 were both hydrogen.

Further, the teachings of Pratt, taken as a whole, make clear that the principle of operation of the invention of Pratt is based on the requirement of selecting a developer which is capable of undergoing only a single nucleophilic attack reaction. Therefore, despite the disclosure of Audousset, which teaches that both para-phenylenediamine and N,N-bis (β-hydroxyethyl) para-phenylenediamine are suitable developer compounds in the compositions of Audousset, there is no suggestion or motivation to substitute N,N-disubstituted p-phenylenediamine with para-phenylenediamine in the composition of Pratt to achieve Applicants' claimed composition. Indeed, to do so goes directly against the principle of operation of the compositions of Pratt because para-phenylenediamine is not a developer capable of undergoing only a single nucleophilic attack reaction.

Accordingly, the combination of Pratt and Audousset fails to establish a *prima facie* case of obviousness.

Alternatively, Applicants' claims 1-18 are nonobvious over the combination of Pratt and Audousset because Applicants have shown the surprising and unexpected results of using a developer which is capable of undergoing at least two nucleophilic attack reactions versus a developer which is capable of undergoing only a single nucleophilic attack reaction, with respect to providing improved UV fade resistance for the magenta color which results from the claimed couplers.

Specifically, in Example 1 and in Table 1, at pages 8-9 of the specification of the present application, Applicants demonstrate that a formulation comprising p-phenylenediamine (*i.e.*, an amino aromatic developer capable undergoing at least two nucleophilic attack reactions) in combination with the magenta coupler 1,3-

dimethylpyrazolin-5-one gives a consumer noticeable UV fade benefit versus a formulation comprising dichloro-para-aminophenol (*i.e.*, an amino aromatic developer capable undergoing a single nucleophilic attack reaction) in combination with the same magenta coupler.

Although this comparative example does not demonstrate unsubstituted p-phenylenediamine versus an N,N-disubstituted p-phenylenediamine compound, the developers of the inventions of Pratt, which are capable undergoing a single nucleophilic attack reaction, include both N,N-disubstituted p-phenylenediamine compound and dichloro-para-aminophenol compounds. Notably, Pratt describes 2,6-dichloro-p-aminophenol and 2,3-dichloro-p-aminophenol as examples of preferred developers for use in the compositions of Pratt. *See* Pratt at page 25, lines 1-5.

Therefore, Applicants respectfully submit that the comparative example provided in the specification of the present application in Example 1 and in Table 1, at pages 8-9, demonstrates surprising and unexpected results for Applicants' claimed hair coloring compositions versus a composition representative of those disclosed in Pratt.

Accordingly, Applicants' claims 1-18 are novel and nonobvious over the combination of Pratt and Audousset.

CONCLUSION

In light of the amendments and remarks presented herein, it is requested that the Examiner reconsider and withdraw the present rejections. Early and favorable action in the case is respectfully requested.

Applicant has made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicant respectfully requests reconsideration of this application and allowance of Claims 1-18.

Respectfully submitted,

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